DOCUMENT RESUME

ED 101 253 CG 009 527

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TITLE	Understanding of Guns, Gun Play, and Aggressivity Among 5-9 Year Old Children.
PUB DATE	May 74
NOTE	22p.; Earlier version of this paper presented at the Annual Meeting of the Midwestern Psychological Association (Chicago, Illinois, May 1974)
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EDRS PRICE	MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS	*Aggression; Attitudes; *Behavior Development; *Children; Elementary School Teachers; *Play; Research Projects; *Socialization; Speeches

ABSTRACT

Knowledge about guns and the relation between play with guns and aggressivity was assessed in a group of 5-9 year old children. Each child was questioned about his gun play and his understanding of guns after he was shown a display of two toy and two real guns. This data was then correlated with a teacher rating of aggression for each child. Children's play with guns was not significantly related to their rated aggressiveness. Further, the children were not able to discriminate reliably between toy and real guns and they held some distorted beliefs about guns. The results are discussed in terms of the aggressive cue hypothesis. (Author)

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UNDERSTANDING OF GUNS, GUN PLAY, AND AGGRESSIVITY AMONG 5-9 YEAR OLD CHILDREN

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One of the most controversial explanations for aggressive behavior in individuals is the aggressive cue hypothesis (Berkowitz, 1962; 1964). According to this hypothesis certain stimuli, of which guns are a major category, function as cues in eliciting aggressive behavior, provided that the individual is aroused and not strongly inhibited. When the stimulus is a gun, this aggression can be viewed as a conditioned response which not only functions as a cue, but also provides the aggressor with a means of aggression. Thus Berkowitz (1968) suggests "...Guns not only permit violence, they can stimulate it as well. The finger pulls the trigger, but the trigger may also be pulling the finger" (p. 22).

Berkowitz (1968, 1970) has used the controversial "weapons effect" reported in the Berkowitz and LePage (1967) study as the basis of his evidence for the aggressive cue hypothesis. Berkowitz and LePage found that college males who were angered administered more shocks to their partner (i.e., a confederate) when a shotgun and pistol were on the table with the shock key than when only the shock key was on the table or two badminton rackets were placed next to the key. However, attempts to replicate the "weapons effect" generally have met with failure. Page and Scheidt (1971) obtained the effect with college students only when these students were aware of the revenge implications. This result,

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according to Page and Scheidt (1971), indicates that the "weapons effect" is contaminated by demand characteristics.

Perhaps the most extensive test of the weapons effect is that reported by Buss, Booker, and Buss (1972) who conducted a series of five studies where college subjects shocked a confederate for making errors in a learning task. In the first study where half of the subjects shot an air rifle prior to engaging in the learning task, Buss et al. found no significant differences in the number of shocks administered. This non-significant finding also appeared in a second study where the subjects shot a heavy pistol. Some evidence of a weapons effect occurred in a third study when the subjects had a history of weapons use (e.g., hunted, etc.), but non-user subjects increased the intensity of the shock more than users. A fourth study found that firing the pistol had a very slight effect on gun users. In a fifth study which used the same procedure as that reported by Berkowitz and LePage, Buss et al. observed that the presence of weapons resulted in a decrease in the number of shocks given the confederate. In general, the research by Buss, Booker and Buss (1972) presents little evidence to support the aggressive cue hypothesis.

Interestingly, the aggressive cue hypothesis has not received much attention in the aggression research with children. Feshbach (1956) reported that low aggressive boys, but not girls, showed increased aggressiveness in a free play situation after playing with aggressive toys such as guns. The high aggressive group showed little change. A more definitive test of guns as an aggressive stimulus was conducted by Mallick and McCandless (1966). Third grade children were frustrated or not frustrated and then placed in an activity when they shot a play gun at a human or animal target, a bullseye, or solved arithmetic problems. The

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subjects were then given an opportunity for revenge by shocking their frustrator. While frustrated subjects gave more shocks than the nonfrustrated subjects, shooting a gun did not influence significantly aggressive scores. In a second study, subjects in the aggressive play with guns condition gave more shocks than those children who discussed the frustrator's behavior with the experimenter, but the effect was not significant.

Although neither the Feshback nor the Mallick and McCandless studies support the aggressive cue hypothesis, one could argue that the duration of contact with the aggressive stimulus was not long enough. Buss et al. (1972) found some evidence of a weapons effect only among those subjects with a history of gun use. Feshback's subjects played with aggressive toys for a 21 minute period once a week for four weeks. Children in the Mallick and McCandless study only had an eight minute period of shooting a gun. Similarly, a long period of exposure to violence in television over time seems to influence aggressiveness in children (e.g. Eron, Lefkowitz, Huesman, & Walder, 1972). Therefore, the effect of guns on aggressive behavior may be more evident among those children with a history of play with guns.

The aim of the present study was to investigate the relationship between children's play with guns and their aggressivity, and also to assess the extent of children's knowledge about guns. Boys and girls ages 5 to 10 years were shown a display of two toy and two real guns and asked a series of questions to determine their knowledge about guns and the extent of their gun play. Measures of the child's verbal, and physical aggressiveness were obtained from teacher ratings of the child. Based on the previous discussion, it was predicted that:

(1) children who play with guns are more aggressive:

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(2) children's knowledge about guns increases with age.

Method

Subjects

The subjects were 73 largely middle class children (37 boys and 36 girls) ranging from 5-10 years of age. The children were grouped into the following age categories: 5-6 year olds ($\bar{X}$ = 68.18; s = 2.89; n = 3 boys and 8 girls); 6-7 year olds ($\bar{X}$ = 77.69; s = 3.36; n = 8 boys and 8 girls); 7-8 year olds ($\bar{X}$ = 88.64; s = 3.00; n = 9 boys and 5 girls); 8-9 year olds ($\bar{X}$ = 99.29; s = 2.64; n = 7 boys and 7 girls); and 9-10 year olds ($\bar{X}$ = 114.39; s = 5.96; n = 10 boys and 8 girls). The subjects were white with the exception of three 5-6 year old black children. The subjects were randomly selected from a pre-school in a lower middle class area and an elementary school in a middle class suburban area. All of the subjects were of average IQ or higher.

Stimulus Display

During the course of the interview each of the subjects was questioned about four guns which were displayed on the table at which the subject was seated. Two of the guns were toy or play guns and consisted of a rifle and a pistol. The other two guns were a 22 caliber pistol and a 22 caliber rifle. The guns were labeled A through D with a tape label. Each subject was permitted to look at the guns, but not to pick them up since their different weights may have influenced the subject's responses to questions about the guns. The toy rifle and the real rifle were quite similar in appearance and both the toy and real pistols had ivory handles.

Procedure

Each of the subjects was interviewed individually, by the senior author, in a small room where he/she was seated at a table containing the gun display. All of the interviews were recorded on a cassette recorder.

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The children were asked a series of 16 questions relating to guns and their understanding of guns. Each child was specifically asked if they played with guns, the types of guns they played with, whether their father had guns at home, what type of people use guns, and what guns are used for. Then the subject's attention was focused on the gun display. The subject was asked: what happened when one was shot with a gun; whether each of the guns could hurt someone; the name of each gun; and the differences between the guns. Finally, each subject was handed the toy pistol and asked to show the interviewer how he/she would shoot this gun.

At the end of the interview the subject was asked not to discuss the gun display or the question with the other boys and girls in his class, to reduce contamination of responses. The interviewer's probing of subjects and teacher reports indicated that little discussion actually occurred among the children.

Aggression measure.

Each child was rated on an 18 item aggression scale, constructed from items from Sears, Maccoby and Levin (1975), by the child's teacher. The teacher was asked to rate the child on each item using one of five responses ranging from very frequently to very seldom. The teachers were further instructed to check over their ratings for each child to make certain that they had considered individual differences among children. They were also instructed that insofar as possible children should be distributed on particular behaviors across the different frequency categories.

The 18 item scale consisted of 6 items measuring verbal aggression with the remaining 12 items measuring physical aggression. The split-half reliability corrected with the Spearman-Brown formula was .95 for both

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subscales. The reliability estimate for the total scale was .97. The intercorrelation between verbal and physical aggression scores was .86.

Each item on the aggression scale was scored from 5 (very frequently) to 1 (very seldom). Thus a high score indicated high aggressiveness. Three scores were generated from the rating scale: verbal aggression score, physical aggression score, and a total aggression score. These scores provided the dependent measures for the aggression analyses.

Results

The subjects' responses to the interview questions were analyzed with chi square and binomial analyses to determine age and sex differences. These data are presented in Table 1.

Children's Contact with Guns

As expected, more boys (95%) than girls (47%) reported that they played with guns. Table 1 shows the sex difference to be significant. However, age was not a significant factor in gun play as noted by the chi square value, although binomial tests show that more 6-7 year olds and 7-8 year olds played with guns ($p < .05$). Table 1 further shows that boys of all ages were involved in gun play, whereas gun play among girls was confined to those girls who were younger than eight years of age.

The pattern of results for guns at home, including parent ownership of guns, which is presented in Table 1, is very similar to that reported for play. More boys than girls reported that guns were present in their home, and the chi square value for age was not significant, although binomial tests showed that more 6-7 and 7-8 year olds reported that guns were present in their homes.

Insert Table 1 about here

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Children's Knowledge About Guns

Table 1 indicates that as children increase in age they perceive that guns are used mostly to shoot people (77% of the subjects gave this response). The chi square value for age is significant. Only a few children (23% of the total sample) reported that the major use of guns was for shooting at targets or animals. Children's belief that guns are most often used to shoot people is clarified further in their responses to the question, "Who uses guns?" Cowboys and Indians were the most frequent responses given by preschool and kindergarten children. The apparent implication is that these individuals shoot at each other. Cowboys, police and robbers were the most frequent choices of first and second graders, whereas hunters and police were the main users of guns according to the third grade subjects. Although older children did not name significantly more different users of guns, according to the data in Table 1 boys were more knowledgeable about different gun users than girls, and children who played with guns named more different users of guns than children who did not play with guns ($\chi^2 = 20.48$, $df = 9$, $p < .05$). Children's knowledge about guns was evident also in their skill in correctly shooting a gun. Many of the 5 year olds (67% of the boys and 38% of the girls) could correctly aim and fire the pistol and this skill increased with age, especially among boys, who were more adept than girls.

The series of questions which focused on the effects of guns produced some unexpected responses. Over 78% of the children indicated that death would result from a gunshot and this response increased with age, although sex was not a factor according to the data in Table 1. Also, play with guns did not influence this response ($\chi^2 = 3.43$, $df = 2$, $p < .05$). However, children were not very accurate in their discrimination of those guns which were capable of inflicting bodily injury. Neither age of the child nor

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sex of the child increased discriminability of those guns which could inflict bodily injury (see Table 1). Further, play with guns also failed to increase the child's discrimination ability. Children who played with guns were not more accurate in discriminating those guns which could inflict injury than children who did not play with guns ($\chi^2 < 1$ for all four gun discriminations).

When children were asked to indicate which guns were capable of inflicting death, the data in Table 1 indicate that age was an influential factor. Most children up to 9 years of age stated that the toy rifle, real pistol and real rifle could inflict death. Some of the younger children indicated the toy pistol could inflict death, and girls thought all guns were capable of producing death, although this percentage decreased with age. Only 25% of those subjects who indicated they regularly played with toy guns were able to discriminate those guns with lethal capabilities. This inability to discriminate guns was substantiated further by the data in Table 1 relating to detection of toy versus real guns. Most children under 9 years of age were unable to detect the toy guns and even 30% of the 9-10 year old boys did not make a correct discrimination. Play with guns also did not significantly increase this discriminability ($\chi^2 < 1$). The realness of the toy rifle seemed to present a problem for all of the children. Overall the data do not unequivocally support the prediction that children's knowledge about guns increases with age.

Children's Contact with Guns and Aggressivity

In the first series of analyses, a 5 (age) X 2 (sex) X 2 (play with guns) ANOVA was performed on the verbal and physical aggression subscores and total aggression score. Age was a significant factor in total aggression ($F = 3.67$, $df = 4, 57$, $p < .01$), verbal aggression ($F = 5.12$, $df = 4/57$, $p < .001$) but not physical aggression ($F = 2.12$, $df = 4/57$,

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$p < .10$). Total aggression, verbal aggression, and physical aggression scores increased for 5- to 9-year olds, but then decreased for the 9-10 year olds. Sex also was a significant factor in that boys scored higher than girls on total aggression ($F = 16.90$, $df = 1/57$, $p < .01$), verbal aggression ($F = 10.97$, $df = 1/57$, $p < .01$) and physical aggression ($F = 18.31$, $df = 1/57$, $p < .01$). These patterns of results are recurrent findings in the aggression literature.

Contrary to predictions children who played with guns did not score higher on total aggression, verbal aggression, or physical aggression (F's < 1 for all three measures). The mean scores for each of these measures are presented in Figure 1. In order to ascertain more clearly the relationship

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Insert Figure 1 about here

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between play with guns and aggressivity, biserial correlations were performed on each of the three measures of aggression. The resulting correlations were total aggression (bis. $r = .06$), verbal aggression (bis. $r = -.004$), and physical aggression (bis. $r = .13$). In a further test of the relationship between play with guns and aggression, a median split was performed on total aggression score, and a chi square analysis performed. The resulting value was nonsignificant ($\chi^2 < 1$). A second chi square analysis was performed using those subjects whose total aggression scores were in the first and fourth quartiles. This chi square value also was nonsignificant ($\chi^2 < 1$).

The interaction between age and play was nonsignificant for total aggression ($F = 1.00$, $df = 4/57$, $p > .05$), verbal aggression ($F = 1.26$, $df = 4/57$, $p > .05$), and physical aggression ($F < 1$). The Sex of child X Play with guns interaction also was nonsignificant (F's < 1 for all three measures).

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Discussion

The contention that guns have aggressive cue properties, and therefore a history of gun use should influence aggressivity, does not obtain much support from the results of the present study. Children with a history of play with guns were not significantly more aggressive according to teacher ratings of aggressivity. This absence of a significant effect needs to be interpreted cautiously, however. One can argue that guns are most likely to function as aggressive cues when the individual is aroused and then placed in an interpersonal situation. This study did not use such manipulations, rather it relied on interview data and teacher ratings. Yet it seems reasonable to assume that teachers observe children in many diverse settings, such as in the classroom, on the playground, in the hallways, etc., where frustration producing arousal is likely and where aggression occurs. If guns function as aggressive stimuli then children who have a history of playing with such objects should be more aggressive. Conversely aggressive children may be more likely to play with guns. The temporal sequencing of the effect doesn't make any difference in the present study. The major concern is with the relationship between play with guns and aggression. There is little evidence in this study that children's play with guns functions as a stimulus antecedent of aggression. A similar conclusion was reached by Buss, Booker, and Buss (1972), in discussing the results of their five attempts to find a weapons effect. They concluded "...neither the long term use nor the transient firing of a weapon enhances subsequent aggression" (p. 302).

While one can argue that the weapons effect proposed by Berkowitz (1968) is based on a single laboratory study, the lack of a significant relationship

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between children's play with guns and their aggressivity in this study may be attributed to other factors as well. It seems likely that much of children's play with guns involves fantasy aggression in that children engage in pretend games such as cowboys and indians and cops and robbers. The subject's responses to the question who uses guns suggests that chidren are frequent participants in these games. While much shooting occurs and the "bad guys" are killed dead, yet everyone knows that the "bad guy" quickly recovers to play the game again. That is, death in these circumstances is also fantasy. Through these types of play experiences children are expressing aggressiveness in an imaginary context and they are aware that it is all make believe. Therefore these types of experiences with guns have little effect on aggressive behavior and may actually result in decreased aggressiveness. Feshback (1970) presents some evidence which suggests that fantasy aggression is negatively correlated with overt aggression.

One can argue also that the predicted relationship between play with guns and aggressivity would have appeared in a situation where the child played with the actual gun, was aroused, and then placed in a potential aggression situation. However, the findings of Mallick and McCandless (1966) as well as Buss et al. (1972) largely negate this argument. Even a history of playing with guns does not influence aggressiveness, as noted by the absence of a significant interaction between age and play with guns in the present study. It seems more reasonable to assume that aggressive behavior is the resultant of many factors, the most influential of which are familial. Thus aggressive stimuli such as guns and violence in the mass media may have their greatest effect on children who are highly aggressive. This seems to be the conclusion emerging from much of the

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research on the effects of violence in television (e.g., Stein & Frederick, 1972).

The data on children's understanding about guns present some unexpected findings. While guns are a masculine play object, 47% of the girls indicated that they played with guns, and with the exception of skill in shooting a gun, there were few sex differences. Thus, whether or not girls play with guns, they are about as knowledgeable as boys. The mass media effect undoubtedly conteracts the expected sex difference. The belief that guns are used to shoot people, that guns kill, and the categories of gun users possessed by these children suggest that mass media has influenced their responses. Children's understanding of guns seems to be quite distorted by the contexts in which they see guns used. Only 64% of the children's parents had discussed guns with their children and the major content of the discussion was a fear approach focusing on the lethal aspect of guns.

The expectation that today's children are sufficiently knowledgeable about guns is not supported by the data of this study. Further evidence for this statement is present in the general inability of children to correctly discriminate toy from real guns. This lack of discriminability was also present among those children who played with guns. Not only did children generally fail on this discrimination but they also believed that the toy rifle was capable of inflicting death. The toy rifle had a very real appearance and this quality may have perceptually seduced the child even though the child was encouraged to carefully examine each gun without handling it. We do not know how children actually discriminate between real and toy guns, but appearance may be a major attribute. This observation also may explain in part why robbery victims are sometimes fooled by a toy gun. What effect this misperception may have on children

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is not known. It certainly seems possible that children may mistake a real gun for a toy and thus become a victim of a serious accident. Alternately children may believe that one quickly and magically recovers from a gunshot since that occurs in their play. Whatever their perception it would seem wise to adequately secure all real guns in the home.

Some potential practical implications of this study should not be overlooked. In addition to the expressed need to adequately store real guns, some comment needs to be made on the distortion in children's understanding of guns and the effects of gun play. Because children believe the major use of guns is to shoot individuals, and children lack discriminative ability about guns, more formal instruction seems to be needed. This instruction may also reduce the number of accidents involving children and guns. Secondly, the concern, which emerged after the assassination of John Kennedy, Martin Luther King, and Robert Kennedy, about children's gun play resulting in more violence does not seem to be well founded. Children appear to be using gun play in an imaginative context and by so doing they may be reducing the need for interpersonal aggressiveness.

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References

Berkowitz, L. Aggression: A social psychological analysis. New York: McGraw-Hill, 1962.

Berkowitz, L. Aggression cues in aggressive behavior and hostility catharsis. Psychological Review, 1964, 71, 104-122.

Berkowitz, L. Impulse aggression and the gun. Psychology Today, 1968, 2, 18-22.

Berkowitz, L. The contagion of violence. In W. J. Arnold & M. M. Page (Eds.) Nebraska symposium on motivation. Lincoln: University of Nebraska Press, 1970, Pp. 95-135.

Berkowitz, L. & LePage, A. Weapons as aggression eliciting stimuli. Journal of Personality and Social Psychology, 1967, 7, 202-207.

Buss, A., Booker, A., & Buss, E. Firing a weapon and aggression. Journal of Personality and Social Psychology, 1972, 22, 296-302.

Eron, L. D., Huesmann, L. R., Lefkowitz, M. M., & Walder, L. O. Does television violence cause aggression? American Psychologist, 1972, 27, 253-263.

Feshbach, S. The catharsis hypothesis and some consequences of interaction with aggressive and neutral play objects. Journal of Personality, 24, 449-462.

Feshback, S. Aggression. In P. H. Mussen (Ed.) Carmichael's manual of child psychology, Vol. 2, New York: Wiley, 1970. Pp. 159-259.

Mallick, S. K. & McCandless, B. R. A study of catharsis of aggression. Journal of Personality and Social Psychology, 1966, 4, 591-596.

Page, M. M. & Scheidt, R. J. The elusive weapons effect: Demand awareness, evaluation apprehension, and slightly sophisticated subjects. Journal of Personality and Social Psychology, 1971, 20, 304-318.

BEST COPY AVAILABLE

Stein, A. H. & Frederick, L. K. Television content and young children's behavior. In J. P. Murray, E. A. Rubenstein, & G. A. Comstock (Eds.) Television and social behavior, Vol. 2: Television and social learning. Washington, D. C. U. S. Government Printing Office, 1972. Pp. 202-217.

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Footnotes

The authors greatly appreciate the cooperation of David Ankenman, Principal of Underwood Hills School, and Sister Ann Marie, director of St. James School, for their assistance in obtaining subjects: the efforts of Pat Plume in the data analysis: and the comments provided by Monte Page.

An earlier version of this paper was presented at the annual meeting of the Midwestern Psychological Associaiton, Chicago, May 2-4, 1974.

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TABLE 1

Age and Sex Comparisons of Children's Knowledge About and Contact with Guns[1]

Contact with and Knowledge about Guns	5-6 yr. olds		6-7 yr. olds		7-8 yr. olds		8-9 yr.olds		9-10 yr.olds		χ^2 Age	df	χ^2 Sex	df
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls				
Play with guns											7.29	4	17.74**	1
Yes	67	50	88	62	100	60	86		100					
No	33	50	12	38		40	14	100		100				
Guns at Home											9.08	4	24.39**	1
Yes	67	62	88	88	100	80	100	14	100					
No	33	38	12	12		20		86		100				
Guns are used for											26.38**	8	2.55	2
Shooting people	33	75	50	75	100	80	100	14	100	100				
Shooting at targets	67	12.5	0	12.5										
Shooting animals		12.5	50	12.5		20		86						
No. of people who use guns											32.77	36	32.84**	9
0-3	67	75	25	75	33	60		86		88				
4-6	33	25	63	25	56	40	72	14	70	12				
7-9			12		11		28		30					
Correctly Shoots a gun											7.11	4	5.40*	1
Yes	67	38	88	38	56	60	86	57	100	75				
No	33	62	12	62	44	40	14	43		25				

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TABLE 1 (continued)

Contact with and Knowledge about Guns	5-6 yr.olds Boys	5-6 yr.olds Girls	6-7 yr.olds Boys	6-7 yr.olds Girls	7-8 yr.olds Boys	7-8 yr.olds Girls	8-9 yr.olds Boys	8-9 yr.olds Girls	9-10 yr.olds Boys	9-10 yr.olds Girls	χ^2 Age	df	χ^2 Sex	df
Effects of Gun											18.39*	8	.55	2
Hurt	33	38	50	38		20	14							
Immobilize				12	11			14						
Dies	67	62	50	50	89	80	86	86	100	100				
Effect of Toy Rifle											5.21	4	2.04	1
Hurt	67	75	50	100	78	100	100	100	70	75				
No Hurt	33	25	50		22				30	25				
Effect of Toy Pistol											4.12	4	1.16	1
Hurt	100	38	38	62	67	100	14	71	50	62				
No Hurt		62	62	38	33		86	29	50	38				
Effect of Real Pistol											6.32	4	.15	1
Hurt	67	75	88	100	89	100	100	100	90	100				
No Hurt	33	25	12		11				10					
Effect of Real Rifle											6.04	4	.57	1
Hurt	67	75	75	100	89	100	100	100	100	90	100			
No Hurt	33	25	25		11					10				

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TABLE 1 (continued)

Contact with and Knowledge about Guns	5-6 yr.olds Boys	5-6 yr.olds Girls	6-7 yr.olds Boy	6-7 yr.olds Girls	7-8 yr.olds Boys	7-8 yr.olds Girls	8-9 yr.olds Boys	8-9 yr.olds Girls	9-10 yr.olds Boys	9-10 yr.olds Girls	χ^2 Age	df	χ^2 Sex	df
Guns Capable of Death											55.90**	32	14.35	8
Toy Rifle		12.5							1					
Toy Pistol	33	12.5								4				
Toy Rifle & Real Rifle		25	12	25	11	20								
Toy Rifle, Real Pistol and Real Rifle	67	12.5	50	25	11	20	57	57	20					
Real Pistol & Real Rifle					44		29	29	70	38				
All of the Guns		38	25	38	22	60	14			12				
Recognize Difference Between Toy & Real Guns											12.64**	4	3.11	1
Yes	33			12	44		29	29	70	38				
No	67	100	100	88	56	100	71	71	30	62				

[1]Values are expressed in percentages.

*$p < .05$

**$p < .01$

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Figure Caption

Figure 1. Mean aggression scores for verbal, physical, and total aggression.

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